Title (en)

Rotary internal combustion engine with cooled insert

Title (de)

Drehverbrennungsmotor mit gekühltem Einsatz

Title (fr)

Moteur à combustion interne rotatif avec insert refroidi

Publication

EP 2623710 A3 20140423 (EN)

Application

EP 13154266 A 20130206

Priority

US 201213366458 A 20120206

Abstract (en)

[origin: EP2623710A2] A rotary internal combustion engine (10) has an insert opening (36) defined in a hot area of one of the walls (18) of the stator body (12) and in communication with its internal cavity (20). At least one groove (58) is defined within the opening (36) around a perimeter thereof. At least one coolant inlet channel (88) is defined therein in communication with each groove (58), and at least one coolant outlet channel (90) is defined therein in communication with each groove (58). A cooling jacket (50) lines the insert opening (36), the cooling jacket (50) cooperating with each groove (58) to define a cooling gallery (62) around the insert opening (36). An insert (34) is sealingly received in the cooling jacket (50), the insert (34) being made of a material having a greater heat resistance than that of the wall (18).

IPC 8 full level

F01C 21/06 (2006.01); **F01C 1/22** (2006.01)

CPC (source: EP US)

F01C 1/22 (2013.01 - EP US); **F01C 21/06** (2013.01 - EP US); **F02B 53/00** (2013.01 - US); **F02B 53/10** (2013.01 - US); **F02B 53/12** (2013.01 - US); **F02B 55/10** (2013.01 - US); F02B 2053/005 (2013.01 - US)

Citation (search report)

- [A] US 4089306 A 19780516 - GOLOFF ALEXANDER
- [A] US 4181102 A 19800101 - KOGURE HIROSHI [JP], et al

Cited by

EP2778341A1; US9200563B2; US9771860B2; US9957885B2; US10267217B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2623710 A2 20130807; **EP 2623710 A3 20140423**; **EP 2623710 B1 20150610**; CA 2805184 A1 20130806; CA 2805184 C 20200324; US 10247092 B2 20190402; US 2013199491 A1 20130808; US 2015337726 A1 20151126; US 9121277 B2 20150901

DOCDB simple family (application)

EP 13154266 A 20130206; CA 2805184 A 20130206; US 201213366458 A 20120206; US 201514816245 A 20150803